informatics inc. 5430 VAN NUYS BOULEVARD / SHERMAN OAKS / CALIFORNIA 91401 / PHONE 783-7500

Dear Sir:

This letter is in response to the interest you have expressed in the MARK IV File Management System. The enclosed brochure briefly describes the major attributes of this new and powerful tool for IBM 360 users.

MARK IV has been under development for over one year with initial deliveries currently scheduled for early 1968. MARK IV has been purchased by major corporations throughout the United States, with over 50 installations presently scheduled.

MARK IV is available for purchase or lease with option to buy. Prices start at $610.00 a month. Because of the proprietary nature of the system, detailed documentation is available to only those who have placed an Initial Order. The Initial Order ensures an early delivery of the system and the complete support service which is included in the price of the system.

We look forward to hearing from you shortly.

Very truly yours,

INFORMATICS INC.

Herbert Jacobsohn

Herbert Jacobsohn, Director
File Management Systems

HJ:jac

Enclosure

INTRODUCING THE

MARK IV FILE MANAGEMENT SYSTEM©

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PROLOG

The MARK IV File Management System, developed by Informatics Inc., is an advanced general purpose software system for use with IBM/360 equipment. It is applicable to a wide range of file oriented data processing applications. Reflecting seven years experience in the development of similar systems, MARK IV has been under development since early 1966. Available on a nation-wide basis, major corporations throughout the United States have already contracted for the use of MARK IV.

MARK IV operates on IBM/360 equipment under either the standard Disk Operating System (DOS) or Operating System (OS). The System is easy for management personnel to learn and use; more sophisticated users have great flexibility in using the full MARK IV capabilities.

A complete service support program assures the optimum performance of the System. Specially trained Informatics' system engineers support each MARK IV installation and are backed by a permanent headquarters maintenance staff.

This document summarizes the major facts about the MARK IV File Management System.

June 1967

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MARK IV FILE MANAGEMENT SYSTEM ©

WHY MARK IV

The growing importance of the computer as a business management tool is placing an ever-increasing demand on data processing organizations. While attempting to satisfy the requirement for more and faster information flow, the Data Processing manager is faced with:

- A severe shortage of skilled programmers and system analysts
- A rising salary scale and rapid turnover of experienced data processing personnel
- The reprogramming and other transitional problems associated with installation or pending installation of third generation computers.

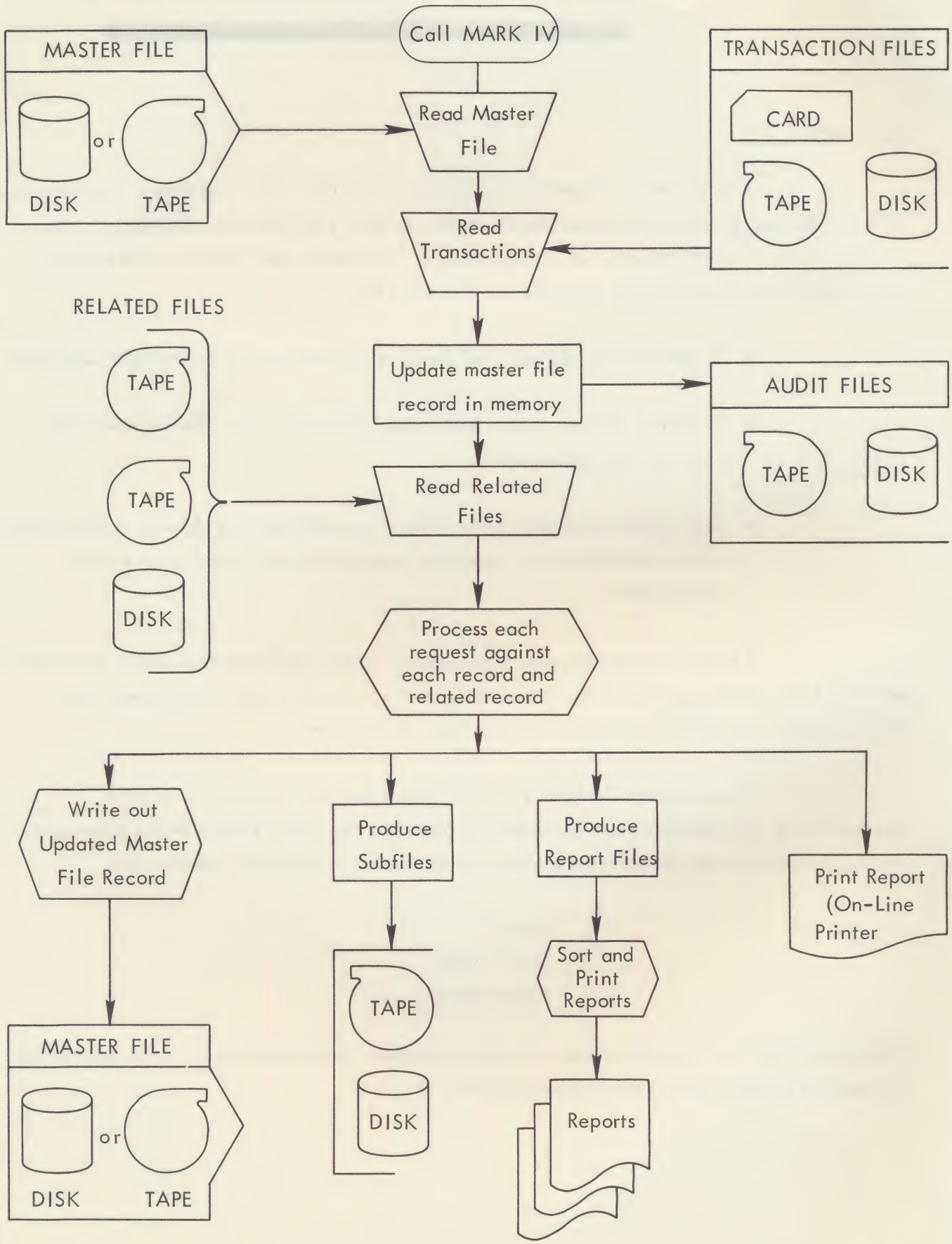
These conditions are aggravated when requestors of data processing services are insensitive to the time required to develop and implement new applications or "little" changes to existing programs.

Informatics' MARK IV File Management System, for IBM System/360, is specifically designed to provide the Data Processing manager with a powerful tool to alleviate these problems. MARK IV saves you:

TIME
DOLLARS
and PERSONNEL

when used for the development, implementation, documentation, and operation of business data processing applications.

MARK IV SYSTEM FUNCTIONAL FLOW



WHAT IS MARK IV?

MARK IV is a general purpose file management system that provides, in addition to efficient day-to-day operation, quick response for special reports and other critical one-time requirements. It is a proprietary software package that simplifies computer solutions to many business problems.

In brief, MARK IV will produce programs for the IBM System/360 that will:

- Create - Files* from data on punched cards, magnetic tapes, and direct access devices.
- Maintain - Files by performing changes, additions, and other update actions.
- Read - A Master File and as many as four related files simultaneously for updating, processing, and output.
- Select - Records from files that contain data which meet specific qualifications.
- Extract - Data items from the selected records.
- Compute - Results for use in printed output, subfiles, updating of master files, and in further record qualification and additional computation.
- Arrange - Output by sorting, sequencing, and grouping.
- Format - Printed reports containing such elements as Preface, Page Title, Page Number, Column Headings, Line Numbers, Detail Entries, Summaries, Averages, and other details that make a printed report or document informative and attractive.
- Summarize - Data to as many levels of totals and subtotals as required.
- Print - Reports with wide flexibility in format and content on:
  Standard computer paper,
  Special size output - labels, 3x5 cards, etc.
  Pre-printed forms - paychecks, invoices, journals, etc.
- Produce - New files, parts of files, combinations of files and audit files on magnetic tape, direct access devices, and cards.

*MARK IV files may be on magnetic tape, cards, and direct access devices. They may contain fixed or variable length records and can be processed sequentially or indexed sequentially.

HOW DOES MARK IV WORK?

MARK IV generates computer programs based upon specifications given to it by the user. The user employs a set of simple structured forms to prepare the specifications which become the MARK IV source input.

MARK IV, executed as a normal DOS or OS/360 job,

- reads the source input
- edits and verifies the entries.

If all edits and checks are successful, MARK IV proceeds to:

- select the appropriate program modules and subroutines from its library
- generate a complete program to accomplish the specified functions
- execute the generated program, which
- produces the desired results.

If the results are required on a daily or weekly basis, the user may instruct MARK IV to save the edited instructions. When the repeat run is made, MARK IV retrieves the saved instructions from its catalog. New requirements may be incorporated at this time and an augmented program is generated and executed.

A single MARK IV program, with only one reading of the master file, may produce many different outputs for many different users to meet their individual requirements.

IS THE MARK IV SYSTEM EASY TO LEARN AND USE?

Ease of use is a primary attribute of MARK IV; in other words, it provides simple solutions to simple problems.

A typical data processing task is the selection of a group of records from a file and the production of a report from the selected data. This entire task is completely defined in a matter of minutes by filling in the MARK IV Forms. This can be contrasted with the days or weeks normally required to program, debug, system test, and document the same problem using COBOL or another computer programming language.

Solutions to more complex problems involving:

- reading of multiple related input files
- master file updating
- computations with data fields and constants
- printing of many different reports
- producing multiple subfiles

normally require only a few days of effort with MARK IV. Again we can contrast this small MARK IV effort with the months required to complete the same tasks using common data processing techniques.

The "ease of use" philosophy is enhanced by the rapidity with which the user can learn to use MARK IV. A few hours is all that is needed to learn most of MARK IV's capabilities. This holds true even when the user is not familiar with computers or data processing. Managers, administrative assistants, clerks, and presidents can all be taught to make productive use of MARK IV. A few days of instruction will provide an experienced data processing individual with the proficiency to utilize all the power and flexibility of the MARK IV System.

WHY IS MARK IV SO EASY TO LEARN AND USE?

MARK IV has three major features that make the System extremely simple to learn and use. These are:

- Automatic System Functions
- De Facto System Operation
- Simple, Structured Forms

Automatic System Functions

Perhaps the most important reason for MARK IV's simplicity of use is its ability to perform automatically many of the common data processing tasks. These common functions are pre-coded and stored on the MARK IV library. When required, they are called from the library automatically and included in the generated object program.

An example of this MARK IV ability is the process of maintaining and updating a master file. The master file, and the transactions which update the data in the master file, are defined only once. These definitions are stored in the MARK IV dictionary and called in automatically, when required.

To perform the file management functions the user merely gives the name of the file and puts "FM" in the proper place on the Run Control Form. The rest is completely automatic and absolutely no programming by the user is required.

With this single item of input, MARK IV will:

- Read the master file
- Read the transactions
- Match the transactions with the proper master file records
- Perform the appropriate updating process using the data from the transactions
- Produce audit files of:
  - Unacceptable transactions
  - Deleted master file records
- Write out the updated master file

De Facto System Operation

Contributing further to its ease of use is MARK IV's unique "de facto system". This de facto or "standard" system is a preselected mode of operation that will solve many application requirements. The de facto system present in MARK IV will be invoked automatically whenever the user does not specify alternatives on the various forms. Thus, by leaving a particular specification blank on a MARK IV form, the de facto system function for that specification will be performed. For example, to produce a report of all of the records in the master file the user simply omits filling in any selection criteria. This is shown in the example.

Simple Structured Forms

The simplicity of MARK IV's structured forms facilitates user communication with the System. The specific forms used depends upon the complexity of the request and the data processing knowledge of the user. No programming is required.

The simplicity of the MARK IV forms, the de facto operation and some automatic System functions are illustrated by the following example.

Problem: Produce a TELEPHONE DIRECTORY from the contents in the Personnel File showing NAME, PHONE, EXTENSION, home ADDRESS and HOME PHONE. An alphabetical listing is desired.

Solution: Fill in the MARK IV Basic Request Form, with just the information shown in the example.

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MARK IV FILE MANAGEMENT SYSTEM
BASIC REQUEST

TELDIR — Request Name — Use File Named: PERSONEL — Dated: TODAY

Requestors Name	Telephone/Ext.	Division/Dept.
I.V. MARK	371	15

TITLE

001 TELEPHONE DIRECTORY

RECORD SELECTION

NONE REQUIRED

REPORT SPECIFICATION

Field To Be Printed	Sort Sequence
NAME	1
PHONEEXT	
ADDRESS	
HOMEPHON	

RESULTS PRODUCED BY MARK IV FROM EXAMPLE BASIC REQUEST

TELEPHONE DIRECTORY

NAME	PHONE EXTENSION	HOME ADDRESS	HOME PHONE
ABRAMOFSKY, T.	345	134 RODDA AVE	781-2345
ALTUCHER, S.	321	1781 WEST BLVD	781-7788
BARSAMIAN, L.	678	1214 HILL ST	345-7829
BAUER, W.F.	478	891 WESTLAKE AVE	347-7865
BECKER, R.M.	471	812 N. ORANGE AVE	378-2121
BENJAMIN, R.	128	121 NATIONAL BLVD	347-8876
BUETTELL, D.E.	341	144 E. GROVE AVE	873-4211
BRADDOCK, F.	321	782 S. BRAND AVE	781-9782
COLLINS, T.W.	217	817 W. ROSCOE ST	871-3131
COOPER, W.R.	117	1218 STANDARD AVE	781-9650
CORYELL, N.T.	228	1814 NATIONAL BLVD	781-9600
COUCH, S.	229	161 E. MAIN ST	347-2011
CROWLEY, D.	382	128 COMMERCE ST	781-2515
CUTLER, W.C.	340	130 AVIATION BLVD	347-[illegible]
DOWKONT, A.J.	821	161 TRADE ST	
HASKELL, E.D.	671	170 ALLEN BLVD	
HECKATHORNE, R.B.	421	1117 MAPLE AVE	
JACOBSOHN, H.	487	444 IVY ST	
KREINER, P.J.	507	411 LEAGUE	
LIVELY, J.T.	875	1007 HILL	
LOCKWOOD, L.	218	1025 TR[illegible]	
MARK, I.V.	371	8241 M[illegible]	
PINETTE, J.	788	784	
POSTLEY, J.A.	220	41[illegible]	
REDEKOPP, J.	871		
STOKES, M.	733		
STONE, R.D.	225		
SUNDERLAND, R.M.	217		
TAYLOR, T.R.	371		
WAGNER, F.V.			
WILLIAMS, L.M.			
ZANICCHI, J.A.			

OUR CREDENTIALS

The development of the MARK IV File Management System by Informatics Inc. represents a major advance in the field of solving computer programming problems for business data processing.

THE MARK IV File Management System is a fifth generation general purpose file management system created by the Advanced Information System (AIS) Division of Informatics Inc. In the past seven years, this Division has produced a series of file management systems for use on various computers.

With the advent of third generation computer systems, especially the IBM System/360, AIS concentrated its design experience and understanding of problems facing the business data processing field in the development of the MARK IV File Management System.

Informatics Inc. is one of the larger internationally recognized software and systems research firm that has specialized in on-line systems for scientific, military, and commercial applications. Informatics performs a variety of tasks in data processing, from design consulting to total implementation of large scale systems. Offices and technical personnel are located in California, Texas, Maryland, New York, New Jersey, Massachusetts, and in Europe.

ONE FINAL WORD

The MARK IV File Management System places in the hands of a data processing manager a powerful, versatile tool that provides positive control over his time requirements, budget limits, and personnel scheduling.

The MARK IV File Management System enables the data processing organization to:

a) process more information for less cost
b) relieve pressing personnel problems
c) produce faster, more flexible reports
d) respond rapidly to changes
e) reduce response time for new requirements drastically
f) reduce documentation costs
g) facilitate overall standardization of files and file structures.

Installation and support of MARK IV by Informatics includes:

- training in the use of the System
- follow-up program of monthly technical visits
- periodic technical newsletter
- a users organization to provide for further interchange of ideas, techniques, problems, and suggestions.

Informatics' MARK IV File Management System, with its program of full customer service and support, is a powerful, dollar saving asset to your data processing organization.

MARK IV FILE MANAGEMENT SYSTEM©

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